

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned application:

1. (Currently amended): A method for fabricating a structure in the form of a plate, the method comprising:

depositing at least one intermediate layer on a substrate, wherein the substrate is formed from monocrystalline silicon and wherein the intermediate layer is formed from doped silica comprising extrinsic atoms, wherein the extrinsic are atoms of phosphorus or phosphorus and boron, thus forming an intermediate layer of phospho-silicate glass (P.S.G.) or boro-phospho-silicate glass (B.P.S.G.), the intermediate layer comprising at least one base material having distributed therein atoms or molecules termed extrinsic atoms or molecules which differ from the atoms or molecules of the base material, wherein the intermediate layer is selected such that if a heat treatment is applied, the intermediate layer can become plastically deformable and the presence of the selected extrinsic atoms or molecules in the selected base material can cause the formation of micro bubbles or micro cavities in the intermediate layer;

bonding a superstrate to the intermediate layer by molecular wafer bonding, wherein the superstrate is formed from monocrystalline silicon; and

applying a heat treatment to the structure, in at a the temperature range of said heat treatment, whereby the intermediate layer is rendered plastically deformable and micro-bubbles are formed therein such that the heat treatment produces micro-bubbles or micro-

cavities which weaken the intermediate layer and render the intermediate layer plastically deformable.

2. (Canceled)

3. (Previously presented): The method as claimed in claim 1, wherein the heat treatment produces a rupture of said intermediate layer and, as a result, separation of the substrate and the superstrate.

4. (Previously presented): The method of claim 1, further comprising applying forces between the substrate and the superstrate to bring about the rupture of the intermediate layer between the substrate and the superstrate due to the presence of said micro-bubbles or micro-cavities.

5. (Previously presented): The method of claim 1, further comprising chemically attacking the intermediate layer of the structure to at least partially remove said intermediate layer between the substrate and the superstrate.

6. (Canceled)

7. (Currently amended): A method for fabricating a silicon wafers, comprising:

depositing at least one dielectric intermediate layer on a substrate formed from silicon, the dielectric intermediate layer comprising at least one base material ~~having distributed therein atoms or molecules termed extrinsic atoms or molecules which differ from the atoms or molecules of the base material wherein the base material is formed from silica and comprises extrinsic atoms, wherein the extrinsic atoms are atoms of phosphorus or~~

phosphorus and boron, thus forming an intermediate layer of phospho-silicate glass (P.S.G.) or boro-phospho-silicate glass (B.P.S.G.);

wherein the intermediate layer is selected such that if a heat treatment is applied, the intermediate layer can become plastically deformable and the presence of the selected extrinsic atoms or molecules in the selected base material can cause the formation of micro-bubbles or micro-cavities in the intermediate layer;

bonding a superstrate to the intermediate layer by molecular wafer bonding, wherein, on the intermediate layer side, the substrate and the superstrate respectively comprise a thermal silicon oxide; and

applying a heat treatment to the wafer, in ~~the~~ a temperature range ~~of the heat treatment, whereby the intermediate layer is rendered plastically deformable and micro-bubbles are formed therein such that the heat treatment produces micro-bubbles or micro-cavities which weaken the intermediate layer and render the intermediate layer plastically deformable.~~

8. (Canceled)

9. (Previously presented): The method as claimed in claim 8, wherein the concentration of phosphorus is in the range from 6% to 14%.

10. (Previously presented): The method as claimed in claim 8, wherein the concentration of boron is in the range from 0% to 4%.

11. (Previously presented): The method as claimed in claim 7, wherein the heat treatment is carried out at a temperature in the range from 900°C to 1200°C.

12. (Canceled)

13. (Canceled)

14. (Previously presented): The method as claimed in claim 7, further comprising exerting forces on said structure in a manner such that rupture of said intermediate layer is brought about, resulting in separation of the substrate and superstrate due to the presence of said micro-bubbles or micro-cavities to obtain a wafer constituted by the substrate and/or a wafer constituted by the superstrate.

15. (Previously presented): The method as claimed in claim 7, further comprising chemically attacking said intermediate layer of said structure to bring about separation of the substrate and superstrate due to the presence of said micro-bubbles or micro-cavities to obtain a wafer constituted by the substrate and/or a wafer constituted by the superstrate.

16. (Previously presented): The method as claimed in claim 7, further comprising producing projecting portions in the substrate and/or the superstrate on said intermediate layer side.

17. (Previously presented): The method as claimed in claim 16, wherein the projecting portions are rectilinear and extend to the sides of the intermediate layer.

18. (Previously presented): The method as claimed in claim 7, wherein at least some of said micro-bubbles or micro-cavities are open-celled and at least some thereof constitute channels.

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19. (Previously presented): The method as claimed in claim 7, further comprising reducing the thickness of said superstrate and/or substrate.

20. (Previously presented): The application of the method as claimed in claim 7 to the fabrication of silicon on insulator (S.O.I.) plates for the fabrication of integrated electronic circuits and/or integrated opto-electronic circuits.

21-28. (Canceled)

29. (Previously presented): The method as claimed in claim 1, further comprising producing projecting portions in the substrate and/or the superstrate on said intermediate layer side.

30. (Previously presented): The method as claimed in claim 29, wherein the projecting portions are rectilinear and extend to the sides of the intermediate layer.

31. (Previously presented): The method as claimed in claim 1, wherein at least some of said micro-bubbles or micro-cavities are open-celled and at least some thereof constitute channels.

32. (Previously presented): The method as claimed in claim 1, further comprising reducing the thickness of said superstrate and/or substrate.

33. (Previously presented): The application of the method as claimed in claim 1 to the fabrication of silicon on insulator (S.O.I.) plates for the fabrication of integrated electronic circuits and/or integrated opto-electronic circuits.